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The importance of university, students and students' union partnerships in student-led projects

Student-led projects – a case study

1409

A case study

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Abstract

Purpose – This paper aims to explore a single-institution case study of partnership working between students, the University and Students' Union, through four student-led sustainability projects. The paper analyses the role and value of these partnerships and provides advice for other institutions on effective partnership working between these stakeholders.

Design/methodology/approach – A single case study of partnership working with multiple embedded units of analysis (four projects) is presented based on reflections of practitioners involved in the projects who have different roles within the University and Students' Union.

Findings – The longevity and effectiveness of student-led projects, and disciplinary-breadth of students engaged, can be enhanced by greater collaboration with, and integration into, University and Students' Union systems. Partnership working between different stakeholders is key to overcoming challenges and the success of student-led projects, helped by key staff “enablers”. These projects provide myriad learning

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opportunities for developing change agency skills, even where projects are relatively short-lived and could be seen as failures in terms of longevity.

Research limitations/implications – This analysis is based solely on practitioner reflections, with limited direct quantification or qualitative data on the projects' impacts on the students themselves.

Originality/value – This paper draws together the experiences and reflections of four practitioners with different roles within the University and Students' Union across four different projects and provides advice to generate student-led sustainability projects which have longevity and impact for wider student populations and future generations of cohorts.

Keywords Partnerships, Curriculum, Sustainable development goals, Co-curriculum, Hidden curriculum, Students' unions

Paper type Case study

Introduction

The United Nations Sustainable Development Goals (SDGs), referred to as “a blueprint to achieve a better and more sustainable future for all” (United Nations, 2019), encompass intertwining and interdependent economic, social and environmental challenges. Higher Education Institutions have a key role to play in the achievement of the Goals through their research, education, and their own operations and estates, and wider community involvement. One of the ten targets under Goal 4 “Quality Education” is “to ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development[...].” (United Nations, 2019). With 80 per cent of world leaders having attended university, universities have a major responsibility to ensure their graduates have the knowledge, skills, and values to help business, government and society progress towards a more sustainable future (Chalkley, 2006; Shephard, 2015; Winter *et al.*, 2015). The aims of Education for Sustainable Development (ESD) can be achieved in universities through many different routes, including the formal curriculum, the co-(informal) curriculum – the activities that students can become involved in outside their formal programme of study; and the hidden curriculum (Hopkinson *et al.*, 2008; Lozano *et al.*, 2013) – the potential learning created by the environment in which students work, study and live.

Engaging with ESD across the formal, informal/co- and hidden curricula within universities inevitably impacts on many different stakeholder groups, including the Students' Union's permanent staff and elected sabbatical officers; academic staff and professional services staff that support the student experience; the education, research and enterprise missions of the University; estates and operations staff, encompassing diverse activities from accommodation, purchasing and catering; and the students themselves.

In this paper, the “University” will be used to refer to Keele University in its capacity as a Higher Education Institution, its various functions and stakeholders that facilitate those functions, including academic staff for research and education, estates and operations staff in teams ranging from grounds to accommodation and the sustainability team in their capacities directly linking to ESD. The representations of these teams within this paper are based on the authors' experiences and reflections of those experiences rather than based on discussion or consultation with other stakeholders and team members.

Keele Students' Union (KeeleSU) is an independent charitable incorporated organisation, with its own departments, staff members, leadership team and student-led strategic plan. The overall purpose of a Students' Union (SU) in the UK is to represent students' interests; they are led by students, for students. For this reason, Students' Unions have an “Elected Officer” team made up of students who are elected by the

student population to represent their needs and interests in the next academic year. These elected officers lead the strategic direction of the organisation to ensure that the services being offered are in line with student interest. The organisational structures of Student Unions' across the UK vary significantly in terms of size, structure, funding, facilities and support from the University. Students' Unions exist as independent organisations to achieve effective representation of their members (the students) by providing student perspective to University strategic plans, operational processes and academic development. Whilst representation of students is the primary purpose of any Students' Union, it is crucial to note that depending on the structure of the organisation, Students' Unions in the UK may offer a variety of additional services to students including advice and support services, activities such as societies and sports clubs, volunteering opportunities, part-time jobs, social events and commercial services including eating and drinking outlets and shops. They can be misconceived to be solely responsible for social aspects of student experience and can equally be misunderstood to only be relevant to politically engaged students, neither of which are accurate perspectives. This paper highlights various departments within Keele Students' Union including Volunteering, Student Voice, Activities and Commercial Operations. Each of these departments has dedicated staff who are responsible for coordinating different services for students.

Despite occasional conflict, the underpinning objectives of both a University and a Students' Union is a commitment to the largest stakeholder group, the students (Mora, 2017), and to the "student experience", whether through the formal, co- or hidden curricula. The "SU" will be used in this paper to refer to its full-time staff as contributors to this partnership, but it should be noted that the SU is not separate to its members, the students.

Whilst by no means restricted to ESD work within the University, the partnership discussed in this paper, between the institution (Keele University) and the SU (Keele Students' Union), illustrates the positive impacts an effective SU–University partnership can deliver.

ESD opportunities in the formal curriculum are often dependent on the particular interests of the staff teaching on modules and the University's commitment to embedding sustainability education in this way. However, the co- and hidden curricula can also provide many opportunities to engage students with ESD (Hopkinson *et al.*, 2008; Lozano *et al.*, 2013). These three "curricula" types frequently overlap, for example, where the formal curriculum provides opportunities for student learning through involvement in research into improving the sustainability of the campus' estate and operations, feeding into living laboratory approaches. Alternatively, campus-based sustainability improvement projects may be student-initiated, sometimes catalysed by learning in the curriculum (Robinson, 2019). Such projects can provide a wide range of learning opportunities, including opportunities for inter-disciplinary and transdisciplinary working with different disciplines and external organisations, and may have greater transformative potential than purely formal "academic" curriculum experiences (Winter *et al.*, 2015).

Campus-based sustainability improvement projects can face many challenges. One challenge is that academic projects, physical spaces, facilities, operations and necessary data and know-how are led and held by different parts of the University. Cross-university projects therefore inevitably involve diverse stakeholders, requiring close partnership to maximise the benefits to all parties and minimise potential conflict. This emphasises the need for partnership working, relating to Goal 17, "Partnership for the Goals", and implicitly, the need for the SDGs to be considered holistically to enable their potential to be achieved fully (Le Blanc, 2015; Nilsson *et al.*, 2016).

This paper explores the role of collaboration between the University, students and SU in four student-led sustainability projects, as well as the challenges faced, and what we can learn about partnerships for sustainability between these stakeholders to maximise the benefit and impact of the projects, highlighting the importance of SDG 17.

Methodology

This study uses a single case study approach (Yin, 2009) to examine collaboration between the University, students and SU on student-led sustainability projects. This paper inquires into four separate projects involving partnership working between these stakeholders. This study is therefore positioned as “practitioner research” in which the practitioner (in this case, sustainability and student support professionals) inquired into their own practice (in this case, supporting student-led sustainability projects through collaboration) (Trahar, 2009). The reflections of four different practitioner-researchers (the authors) with different positions within the partnership are drawn on to triangulate the learning from each perspective providing inferential validity, and enhancing the internal validity of the analysis. The case study does not seek to be statistically generalisable or to generate external validity, rather the goal is to expand and generalise theories (Yin, 2009) which may be applicable and useful to analogous situations of others. As a result of these “insider” roles, there are greater opportunities for drawing on contextual and tacit knowledge (Brannick and Coghlan, 2007). However, there is more potential for the researcher as “insider” to sway the analysis with personal biases. Incorporating perspectives from four authors working with the projects in different ways provided opportunities for these biases to be challenged, however, improving trustworthiness (Patton, 2015).

Keele University is a rural campus university of over 600 acres in North Staffordshire, England, making it the largest single-site university in the UK, with a student population of around 10,000. The University was the first new university after the Second World War, established by its founder Lord Lindsay as an “educational experiment” with the purpose of training students for a new kind of society and economy based around the ideas of interdisciplinarity and community (Keele University, 2019). In 2008, the University Council (the University’s highest level governing body) committed to a “deep green” philosophy. Shortly after that, sustainability was articulated as a key part of the University’s strategic plan, mission and vision; the University’s learning and teaching strategy; and through individual strategies relating to environmental management, education for sustainability, energy, carbon management, recycling and waste management, procurement, food and catering. The University has adopted the strapline “embedding sustainability in all that we do”, and endeavours to achieve this through a model of distributed leadership and responsibility, supported by a core team of “sustainability professionals” comprising the Environmental Manager, Sustainability Project Officer and Director of Education for Sustainability, with the Deputy Vice-Chancellor the University’s Strategic Lead for sustainability. Keele’s Education for Sustainability Strategy aims for all students to graduate having had the opportunity through the formal, co- and hidden curricula to engage in activities and learning that will help them view decisions in their personal and professional lives through a sustainability lens.

This analysis is informed by varied perspectives from authors who work across the University and Students’ Union. The first author (Briggs) is the University’s Sustainability Project Officer, funded from the Vice-Chancellor’s Office, who reports to both the Director of Education for Sustainability and the Environmental Manager who is based in the Estates and Development Directorate. Briggs works closely with students, the SU, and teams across the University to implement the University’s sustainability objectives. Briggs was

previously a student at Keele University and, as a student, was involved in sustainability in both the co- and formal curricula. The second author (Robinson) is the University's Director of Education for Sustainability, a 0.3 FTE position with a remit for embedding sustainability across the formal curriculum and wider student experience, held by a full-time academic and Professor of Sustainability in Higher Education. The third author (Hadley) is the Student Voice Coordinator whose role is based at the Students' Union. Hadley's role is to enable effective student representation in all aspects of the University, within Keele SU and externally, including on matters of national HE policy. The fourth author (Laycock Pedersen) is a current PhD student whose research explores the student-led campus allotment project, sharing many challenges with other student-led projects. In the past, Laycock Pedersen was also a former part-time Sustainability Project Officer and Teaching Fellow in Environment and Sustainability at Keele University. This paper draws on the experiences and reflections of these four authors through the iterative paper-writing process in which they focussed on the aims of the projects and how the partnerships manifested and the enablers and barriers to the partnerships' support of projects' aims.

Three of the four authors are not students; therefore, this paper mainly presents reflections on the student experience from external partners rather than the direct experience of students themselves. However, the authorial team has considerable insight into the student experience as each author interacts with students involved in the projects. Two of the authors have greater insight into the student perspective as one of the authors is still currently a doctoral student, and another is a recent graduate. However, these might not represent the perspective of a "typical student"; therefore, the review of a manuscript draft by an individual who was a "lead" student involved with three of the four projects was used to bring in a more conventional student perspective.

The projects and partnership analysis

This section explores the University and the Students' Union partnerships of four student-led co-curricular sustainability projects, identifying common features between projects, potential obstacles to their success, and the opportunities projects present for embedding ESD and the SDGs into the student experience (Albareda-Tiana *et al.*, 2018).

The Great Donate

The Great Donate is an end of term "halls move out" scheme which launched in 2014. Originally called "Keele Green Move Out", a less extensive scheme ran in 2014 and 2015 mainly:

- focusing on signposting students to onsite British Heart Foundation (a UK charity) collection banks to donate unwanted clothing and homeware (for resale in their charity shops);
- collecting unwanted bedding and towels for a local animal shelter; and
- collecting unwanted items (i.e. printers) from international students to distribute to future cohorts.

As a result of lobbying and activism from a first-year undergraduate student, and subsequent collaboration with the Environmental Manager, Accommodation Managers, and local food bank (the Trussell Trust), the scope of the project was extended from 2015 to collect non-perishable food for donation to local families. The student sought to address two food related concerns:

- (1) a local problem of “holiday hunger” – food poverty during school holidays (Graham *et al.*, 2018); and
- (2) tackling the problem of non-perishable food being thrown away in campus halls of residence when students moved out.

The “Great Donate” scheme also expanded to collect kitchen equipment from departing students, which was made available to students at the start of the next academic year. This aimed to reduce the disposal of reusable items that students could not take home, and help future cohorts of students save money by buying donated goods. This also generated funds for the student-led sustainability society, as well as raising awareness of responsible consumption and production (SDG12).

Challenges in the initial operation of the scheme included: locating collection boxes in a single location (Halls’ social spaces) instead of in individual kitchens, causing problems such as spillages of open food; dirty items being left at collection points; infrequent collection leading to conflict with cleaning staff and other building users such as causing obstructions; lack of sufficient storage space for collected items; and lack of human resource for subsequent sorting and distribution of items. Collection of donations from social spaces relied on volunteers, which through conflict with academic or social commitments or students leaving for the summer once exams finish could lead to insufficient volunteer numbers. Another challenge was engaging the whole student community, as some kitchen items and food were still being thrown away. Communication failures between University Accommodation Services and students impacted this, and have since been addressed.

To overcome some of these challenges and mitigate negative impacts that could threaten continuation of the scheme, greater partnership working across a wider range of stakeholders was needed. A key development was involving the Head of Portering which led to University portering staff collecting boxes and delivering them to the local food bank, reducing the load on student volunteers. Collaboration with Accommodation Services Managers and Cleaning Services enabled relocation of donation points to kitchens instead of social spaces, increasing student engagement through greater convenience to donate items, whilst reducing the likelihood of food spillages by removing the need to move items between buildings. Top-down support for the scheme also ensured engagement from all Accommodation Services Managers, an aspect which varied between Halls of Residences when students first launched the scheme, and meant that in some Halls potential contributions from students were ultimately disposed of in general waste.

Collaboration with the SU Volunteering department helped to ensure adequate and reliable involvement of student volunteers for collecting, sorting and storing items by advertising the programme as an official volunteering opportunity and including it as an activity that can gain volunteer recognition on the students’ final university transcript. This incentive helped to engage students from diverse disciplinary backgrounds (rather than limiting engagement to sustainability society members or students studying environmental-focussed programmes). Other processes that engaged more diverse students included providing “rewards” for volunteering, a more regular schedule for the required activities, and leadership and coordination opportunities. Partnership with the SU has helped address other challenges, such as engaging with off-campus students wanting to participate in the scheme, and the use of their commercial dishwashers to speed up cleaning items. This facilitated student volunteer involvement in other aspects of the scheme, such as measuring impact, thereby providing more meaningful experiential learning opportunities.

‘The Great Donate’ requires students coordinating it to develop systems thinking (a key sustainability skill (Sterling, 2004 in Dawe *et al.*, 2005)), leading to a better understanding of

how the University (as a complex system) functions, how to work across multiple scales to leverage change, and how actions may have emergent, unintended consequences (both good and bad) (Wiek *et al.*, 2011). The project generates positive social, environmental and economic impacts for students, staff and wider society. Through donating food items and kitchen/household items, students connect to the local community and the issues faced by future students. The scheme also makes a quantifiable difference – in 2017, almost 3 tonnes of food was collected providing an estimated 8,000 meals for people experiencing food poverty. Since 2013, more than £50,000 of donations have been made through the British Heart Foundation “bring banks”, with £10,000 worth being donated in 2017 re-using a potential 8 tonnes of waste (Keele University, 2018).

This collaboration between stakeholders has led to more effective and efficient operation of the scheme. Continued reflection by stakeholders including the Environmental Manager, Sustainability Project Officer, Accommodation Managers and Activities and Community Sabbatical Officer at the SU has identified potential future improvements, including promoting the scheme to avoid students purchasing kitchen items before arriving at Keele; creating boxes of kitchen equipment that students can pre-order before arriving at Keele; collecting items from postgraduate students leaving at different points in the academic year; greater involvement of off-campus students living in private rental accommodation; and measuring kitchen equipment donations to calculate impact. Crucially, developing the University and SU stakeholder partnerships through meetings involving representatives of all stakeholders has demonstrated student demand for the scheme, improved communication and planning, and increased institutional commitment to the scheme contributing to its future continuation.

Keele Food Co-op

Keele Food Co-op was launched through the Think:Green student society which is a sustainability focussed student group set up through and supported by the SU. Its aim was to help students access seasonal, organic and locally produced vegetables free from plastic packaging at point of purchase and was supported by funding from the National Union of Students. Keele students initiated, developed and ran a veg-bag scheme, including ordering produce, taking orders through the SU website, producing communications and marketing materials, and packing and selling the produce to students and staff for collection from a weekly stall. The scheme launched fruit bags in its second year, and in 2017 the scheme was successful in applying for funding to expand further into dried goods (although this was not realised as originally planned).

The student initiators of the project overcame a number of barriers to its establishment, including conflict between the scheme and a weekly vegetable market outside the SU, sourcing suitable suppliers, and establishing a payment mechanism through the SU. Keele Food Co-op continued to face challenges however, including attracting sufficient student volunteers to run the time-intensive enterprise; stock management; and receiving enough orders to provide the variety of produce that customers desired. There were also challenges with variable prices both in terms of increasing costs of produce from suppliers and reducing costs of organic produce in local supermarkets; availability of cheaper ‘wonky’ vegetables in supermarkets; significant delivery charges; and the relatively limited demand for fresh produce from students lacking confidence and experience cooking with fresh produce. Increasing prices for the veg-bags caused by rising delivery charges led to a decrease in the customer base. This, coupled with reduced marketing after the lead student left, resulted in erosion of the scheme.

Difficulties in attracting student volunteers may in part have been due to the initial reliance on 'lead' students who contributed a significant amount of their own time to ordering produce, packing bags and selling veg-bags, and too much reliance on friendship groups as a source of volunteer energy. Conflict arose from students feeling excluded if they could not commit the same amount of time as others (i.e. through timetable clashes between running the scheme and attending classes), or had different visions for the scheme, highlighting a common problem of unequal power distribution that volunteer-managed non-profit organisations can experience (Rothschild-Whitt, 1979 in [Jain, 2012](#)) as well as the problems associated with student transience and "cliquey-ness" ([Brodie et al., 2011](#)). Although other students continued running the scheme, it ultimately ceased operation 18 months after the initial lead student graduated.

Despite the decline of the veg-bag scheme, the commitment of students to this student-led enterprise led to a new initiative. With the support of management at the Students' Union and the Sustainability Project Officer, students were successful in developing the idea that had initially been proposed by Keele Food Co-op to sell dried goods. A successful application for funding from alumni, and reallocation of the NUS funding from the dried goods expansion, facilitated the launch of "Weigh to go" – a packaging-free section of the SU shop with ethically sourced products within the SU building. The SU adoption of operational management of the initiative ensures the longevity of a facility available to the whole Keele (and local) community every day and year-round. It also enabled ethically sourced products such as bamboo toothbrushes and detergent refills to be added to the shop's range. The responsibility and workload for student volunteers is also significantly reduced meaning they can engage with the project in other ways, ultimately preventing the conflict between academic and co-curricular activities that can occur for engaged and committed students ([Leung et al., 2011](#)). With a percentage of the profits from the new 'zero waste shop' going towards student-led sustainability activities, the project demonstrates how the impact of partnership between students and staff members at the Students' Union has allowed a student-led initiative to grow into something new and more impactful, and also to act as an enabler itself, furthering the resources available for sustainability initiatives in the future.

Sustainability Voice Representatives

Sustainability Voice Representatives (SVRs) are students who have a formal responsibility for driving forward sustainability through their courses, as part of the academic representation programme, overseen by the Student Voice department at the SU who are responsible for ensuring the effective representation of students in all aspects of the student experience including, as in this case, the academic experience. The inspiration for SVRs initially came from the University's Law School, who created a 'Green StARs' (Student Academic Representatives) scheme as part of their engagement with the NUS Green Impact accreditation scheme in 2014-15. This initiative prompted the University's ESD team and the SU's Student Voice team to collaborate to introduce the role across all Schools in the University. The SU's Student Voice team liaised with the University's Quality Assurance Manager, whose remit includes overseeing quality standards of degree programmes, to gain agreement to develop the role and add an agenda item for programmes to consider sustainability during Staff-Student Voice Committee meetings.

The University-wide SVR role was launched at the 2017 Student Voice Conference run by the SU, which trains student academic representatives to facilitate the provision of feedback between students and programme teams about their academic experiences. Specific sustainability training for the SVRs was provided by the Sustainability Project Officer. A sustainability breakout session was also included in the annual 'School Staff Champions'

meeting' in February 2018, where the SU provides support and guidance to administrative and academic staff 'champions' about the academic representation programme within Schools. This session facilitated dialogue between the Student Voice Coordinator, Sustainability Project Officer and staff surrounding the new initiative and key concepts including the SDGs.

The SVR role faced a number of challenges in its first year (2017/2018). Despite initial positive interest from students across diverse programmes at the 2017 Student Voice Conference, engagement was impacted by a break between a Student Voice Coordinator leaving the SU and the current co-ordinator being appointed. Once the new Student Voice Coordinator was in post, action was taken to re-build the network of interested students. Additional training was delivered during an exhibition curated by the University's ESD team to coincide with the NUS SDG Teach-in week. This training enabled the Sustainability Project Officer and Student Voice Coordinator to promote the SDGs and their link to disciplines, facilitate discussions and provide support around approaches to embedding sustainability into modules. Following the 2018 Student Voice Conference an embedded process was established, led by the SU as part of Student Voice administration, to communicate with and support SVRs.

A challenge for SVRs is overcoming negative perceptions about the relevance of the role within Schools, particularly where staff and students do not automatically see links to sustainability and their curriculum. SVRs need support and guidance to tackle conversations surrounding embedding ESD, and also where to signpost queries that could be better responded to by the ESD team. This potential issue also highlights the importance of staff engagement with the role within Schools. [Flint *et al.*'s, \(2017\)](#) research found that student academic representation was seen as strongest where a positive commitment from staff (at all levels) existed. It also highlights the ESD team's role in promoting ESD within all Schools, working with Learning and Teaching Directors, and supporting programme teams with advice and resources. The SVR process also has the potential to facilitate a previously inaccessible dialogue to the ESD team including student feedback, how programme teams are responding to that feedback, as well as informing student-led approaches to embedding ESD in the curriculum.

This initiative is in its early stages and is a means of facilitating discussions around sustainability in the curriculum with students as the drivers of those discussions. The SVRs are a formalised point of contact for student input into curriculum review and design within Schools ([Bovill *et al.*, 2010](#)). This is an opportunity for all student academic representation systems; there could be a shift in focus from providing feedback on past experiences within programmes, to what [Flint *et al.* \(2017, p. 39\)](#) refer to as "a forward-looking and enhancement focussed role through, for example, increasing involvement in curriculum design and development." A survey conducted by the SU at the end of the 2017/18 academic year showed that 72 per cent of SVRs would like a more active role in designing programmes and modules across the University, demonstrating potential future impact if the SVR role was developed and utilised in this way.

Feedback from SVRs at the end of the 2017/18 academic year demonstrated that 'Sustainability' has been added onto some Student Staff Voice Committee agendas, however measuring the actions and impacts from this aspect of the role remains problematic. Whilst we have an ability to monitor discussion through formal meeting minutes, more effective methods of measuring and monitoring the actions taken, policies that are implemented and impacts from the process have not yet been established.

The partnership between the ESD team and the Student Voice team in this programme enables students to receive expert knowledge of sustainability within the curriculum whilst

preparing and supporting them to navigate conversations within their School using academic student representation expertise provided by the Student Voice team. The ESD team also gains further insight into the current awareness of Education for Sustainability in Schools and opportunities for developing it.

Student Sustainability Bungalow

The Student Sustainability Bungalow was established in 2011, driven by students studying Keele's BSc Environment and Sustainability programme who wanted to "live what they were learning". Support from the Environment and Sustainability Programme Directors and the Pro Vice-Chancellor for Environment and Sustainability led to a partnership and collaboration with the Estates and Accommodation teams that identified a bungalow on campus with accommodation for four students. It consisted of a communal kitchen, living area, and large garden area to enable students to grow their own food and experiment with sustainable living.

The student initiators aimed to create an exemplar of sustainable student living to inspire other students to engage with pro-sustainability behaviours and projects and to engage with an immersive experience of living more sustainably than standard halls accommodation allowed. Each year four students live in the Bungalow and drive their own sustainability projects. Selection of the housemates is carried out by the Director of Education for Sustainability (who was also the Environment and Sustainability programme director for many years) who oversees the project. The housemates self-nominate themselves to undertake roles relating to data collection (mainly waste and energy monitoring), communications (i.e. social media, blogs), garden maintenance and project leadership. There is an expectation that students will produce a report at the end of the academic year on their activity and as a 'feed-forward' for the next year's housemates.

The Sustainability Bungalow has experienced numerous challenges and has often been a source of conflict between students and the operations teams within the University. It has developed a negative reputation with some operations staff, yet within the University as a whole there is strong support for the initiative, with the vision of the Sustainability Bungalow feeding into future halls development projects.

Housemates have often had strong sustainability values and been keen to challenge the University on perceived 'unsustainable' actions. The Bungalow has played the role of a 'hub' for students with strong sustainability values and interests in activism. These values have led to the development of several major 'change projects' including the previously mentioned 'Keele Food Co-op' and 'The Great Donate'. Involvement with these schemes has led to problems including students hoarding items that they felt should not have been thrown away and storing Great Donate stock before storage areas had been made available. These actions caused access problems for cleaning staff, general health and safety risks, and fire hazards. Some items had also been stored outside making them unusable and risking them becoming waste, creating additional work to remove them, and creating difficulties for Grounds teams to maintain grass and hedges. Frustrations for the project and new housemates were also caused through valuable shared resources such as books and kitchen equipment for communal cooking being disposed of when previous housemates moved out due to communication failures between University teams.

Reflections on the successes and conflicts with the project has identified that the need for a central point of contact is pivotal. This is provided through the Sustainability Project Officer, enabling consistent communication lines between students and key staff, and maintaining a more positive relationship. This highlights the importance of communication in retaining support from key stakeholders in student-led projects, not only for their success

in the present but also to ensure the continuation of the project. It is crucial that Bungalow housemates understand their responsibility for the legacy of the project as their actions could impact the future of the project where it relies on collaboration with and support from stakeholders. Fortunately, different teams across the University have demonstrated an appreciation of the value of exploring student-led projects regardless of whether they remain active.

The project has academic oversight from the Director of Education for Sustainability and more regular support from the Sustainability Project Officer, along with a small budget to support housemates' projects while living in the Bungalow. The Sustainability Project Officer meets regularly with the housemates, but can be contacted at any point for support. At the start of the project the Director of Education for Sustainability, who already had a formal academic relationship with the majority of students living in the Bungalow, was more directly involved with the project. However, support being provided by a member of the ESD team who is not involved in the students' degree programmes helps provide greater separation between the formal and co-curriculum, and public and private aspects of students' lives at university. This addresses some potential conflicts that could arise from power dynamics inherent in staff-student relationships (Healey *et al.*, 2014).

Other support for the housemates is provided through the same channels that other students would access (i.e. accommodation-based enquiries to report faults or Student Services for advice and guidance). There is no financial advantage to students living in the Bungalow – they pay the same fees, but do have access to a different sort of living space. They are also able to live on campus in their second year, whereas they would normally be required to move off campus. To make the expectations of living in the Bungalow clear to students at an early stage, and to provide an opportunity for dialogue, in addition to their standard accommodation agreement, residents are required to sign a 'Sustainable Student Bungalow Agreement' outlining 'house rules' and expectations. However, as there is no repercussion for the students of not following these rules (as, for example, there is no financial benefit to living in the Bungalow), there are no formal mechanisms to manage students' engagement with the project. Future iterations of the project are likely to address these issues through formalised contracting and fee arrangements, which will require further collaboration with Accommodation Services and Finance.

The garden can present a challenge for students who have little experience of growing their own food. Where previous students have neglected the garden, new housemates can find tackling weeds and making the garden productive a challenge. Students living in the Bungalow who have an interest in food growing are often also involved with the student allotments on campus, and can therefore struggle to choose between the garden at the Bungalow and engaging with the student allotments. Many crops are also ready to harvest during the months when most students are absent from the University, which can lead to wastage of crops and negative perceptions about being able to get a return on the effort put in to growing food (Chaplin and Wyton, 2014; Comerford Boyes, 2008 in Hopkinson *et al.*, 2008). One way to address this is to involve students who are on campus at different points in the year, for example, postgraduate students. The Bungalow food growing area is part of the students' private residence, rather than a neutral public space, therefore involvement of other groups in the maintenance of the garden needs to be carefully negotiated, being sensitive to students' private space and their feeling of ownership for that space.

The Bungalow also has an area of shared social space which has become a meeting place for discussions and events for students interested in different aspects of sustainability, resulting in high numbers of visitors to the Bungalow. Although this increases the reach of and engagement with sustainability activities linked to the Bungalow, the increased

occupancy puts additional wear and tear on the building, specifically on flooring when visitors fail to remove dirty footwear. Additional occupancy of the Bungalow also has implications for measuring energy consumption and waste generation i.e. when cooking communally, making it more difficult to measure whether students are actually living more sustainably. There are also limits on the capacity for the building which, if officially monitored, could cause further conflict with accommodation staff. The Bungalow residents are also required to host external visitors on occasions, for example, during Open Days or sustainability conferences, putting additional pressures on their living spaces.

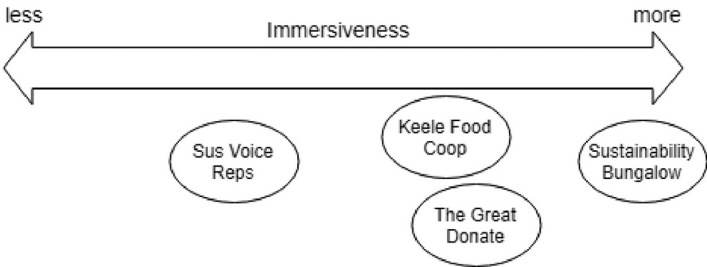
Previous housemates' use of the social space has created a legacy for hosting events such as VegSoc (a student society focussed on vegetarianism and veganism). This has the potential to put some students off applying to live in the Bungalow, or create a sense of obligation for new housemates to continue hosting events. On the other hand, the enrichment of student experience that has been gained through these events throughout the years should be recognised, and the sense of community provided through these sorts of activities can improve an individual's sense of belonging during their student life. It can also create additional workload in terms of cleaning and washing up however.

The Sustainability Bungalow is now recognised as a key sustainability feature for the University, showcased to external stakeholders and visitors at Open Days and conferences. Lobbied for by students, supported by academic staff and enabled by the ESD team, Accommodation and Estates teams, this project has encouraged further developments in sustainable living within the University, all as a result of the collaborative approach to sustaining this student-led innovation.

Discussion

In each of the student-led projects explored in this case study, students have had the opportunity to engage with experiential learning, providing opportunity for deeper learning and understanding to be developed (Kolb, 2015). The projects provide different levels of opportunity for students to be immersed in sustainability issues (Figure 1) as active participants, gaining purposive experiences through changes to their own lives and

Figure 1.
Level of
immersiveness of
student-led
sustainability
projects at Keele
University – SVRs,
Keele Food Coop, The
Great Donate halls
move out scheme, and
the Sustainability
Bungalow – explored
within this case
study. The level of
immersiveness is
based on students
being engaged as
active participants in
the projects



the world around them (Brodie *et al.*, 2011). By providing students with an immersive experience of sustainability issues through different projects, students encounter real-life sustainability problems and scenarios that they can learn from (Dawe *et al.*, 2005), whilst developing skills and attributes such as problem solving, creativity (Kearsley and Shneiderman, 1998), negotiation, marketing and communication, in a way which can be hard to replicate in the formal curriculum. The projects align with engagement theory through engaging students in learning through interaction with others and being involved in tasks that are worthwhile (Kearsley and Shneiderman, 1998). This echoes constructivist learning approaches through the participatory and experiential nature of the projects, whilst providing intrinsic motivation for students due to the meaningfulness of the projects they create (Kearsley and Shneiderman, 1998). The students perceive value in the activities through seeing impact on their student peers, the University community and the wider student community. In all projects, students work as team members applying skills such as communication and through collaboration, students create solutions to a problem they have identified, whilst donations of food, goods or time and effort enable students to benefit the University, future generations of students and wider society.

Enabling aspects to maximise student-led project outcomes

Key stakeholders

All of the projects explored have involved key “enablers” (Hopkinson *et al.*, 2008) in the form of stakeholders from both the University and SU. As described in the respective sections above, the different University and SU departments involved in the projects have provided the specialist knowledge and support needed for each project to exist and to develop. Where different departments within the University or SU have engaged in the student-led projects, there is impact, whether that be to initiate a project, to ensure the continuation of a project or to further the impact and scale of a project. Initial support from academic staff lobbying the University helped to establish the Sustainability Bungalow; the Student Voice team at the SU enabled the introduction of SVRs as a University-wide initiative; and ‘The Great Donate’ was made accessible to all Halls of Residence through contributions from the Environmental Manager, Portering team, Accommodation team Cleaning Services and the SU Volunteering Team.

The introduction of a Zero Waste Shop in the Students’ Union was made possible through internal University (and external NUS) funding, support from SU senior management and the efforts of the SU Sabbatical Officers. This is testament to the initial actions of the students involved in Keele Food Co-op and an example of the pivotal role each branch of the partnership can play in enabling change. Involvement in these projects gives students the opportunity to engage with University structures, processes, networks and stakeholders to develop relationships and generate an understanding about how change happens and the range of people involved in achieving change.

Communication and early planning

The most vital resource to set up and maintain student-led projects is the time of those involved. Where multiple stakeholders are involved with different working practices and schedules, organising meetings that accommodate everybody’s diaries can be difficult. Different working practices can also lead to frustrations from different stakeholders. Students and staff work on different timescales and as such have different conceptualisations of time which can affect their relationships (Laycock Pedersen *et al.*, 2019). Students are often frustrated at the seemingly slow rate of progress from University operations, and University staff frustrated by what is seen as unreliable communication and

response to emails from students, who may not use email as their main form of communication. Encouraging a culture of empathy, face-to-face interaction, asking for help, and collaborative working between students and staff can support students in making progress in student-led projects. Early planning can also ensure that where schemes and projects need to align with other institutional commitments and timetables, resources and plans can be put in place.

Students leading with staff support

Although many student-led projects arise from student societies or can be inspired by content covered in the curriculum, there is a limit to the amount of time that students can commit to sustainability projects, particularly in an era when many students also have part-time paid work commitments (Curtis and Shani, 2010; Hall, 2010). There is also a tendency for students to want to drive their own *new* projects, rather than “fit into” an existing initiative set up by others. Some projects will have a naturally short life span, ending when the interested students either run out of time or commitment, or leave the institution. These need not be seen as failures if they have provided benefit and learning during their lifespan, especially where they have catalysed new projects or challenged the status quo. There are also many projects which have a tangible benefit to the wider University community, and a case can be made for the University and/or SU to provide structure and support (for example, partnering with the SU volunteering team) to ensure a greater legacy and longevity of a student-initiated project.

The partnership's role begins with providing the resources and platform to make projects a reality and continues through supporting their longevity and development, as well as sharing students' achievements and project outcomes so their impact is recognised and celebrated. A staff member can gain added job satisfaction from being involved in student-led sustainability initiatives, derived from learning new skills, working on projects in line with personal values, or through having an active role in enhancing the student experience.

Providing space to fail

As the co-curricular activities discussed here are student-led and supported by other students, elected officers and members of staff, they afford students a safe space to venture beyond their comfort zone and approach challenges in a space where they are permitted to fail without significant or adverse consequences. Failure and “crisis” are thought to have considerable pedagogical potential (Kapur, 2008), particularly in generating agency to act in times of decisive change (Houwer, 2011). This safe space provides an important avenue for students to explore change making for sustainability while alleviating the fear of failure as part of their degree, and without impact on their degree classification.

Developing reflective practice to aid learning

Action and activism does not itself automatically lead to learning, without the inclusion of reflection (Boud *et al.*, 1987; Kolb, 2015). To fully benefit from the projects outlined and for students to value the potential of learning from co-curricular activities, reflective practice needs to be considered as part of a co-curricular experience. Likewise, other project stakeholders need to reflect on the learning from projects to improve the project or future projects. While reflection is relatively easily achieved through the formal curriculum where reflective practice has become a common part of assessments (Harvey *et al.*, 2010; Barton and Ryan, 2013) and often part of formal continuing professional development, this is more difficult in the co-curriculum sphere (Harvey *et al.*, 2010) therefore it will require the

partnership to create a culture of reflection and reflective practice as part of co-curricular activities and opportunities.

Barriers to student-led project achievements

Weak stakeholder relationships

Although the student-led projects outlined in this paper were initiated by students and are supported by staff and elected officers, their sustained operation has been largely due to wider stakeholder involvement across the University. This means that key staff “enablers” (Hopkinson *et al.*, 2008) need to develop and maintain good relationships with a wide range of University and SU stakeholders. In addition, key staff “enablers” need to support students to understand the range of stakeholders impacted by any ‘change’ project. Staff can either mediate all of the stakeholder relationships, or help students to establish and develop these stakeholder relationships in a relationship based on shared-power (Helferty and Clarke, 2009). Although the latter holds greater risk, there are also greater benefits to students in developing change agency skills, with students gaining a greater understanding of different stakeholders and organisational structures, as well as developing an understanding and sensitivity to different priorities and pressures of stakeholders, and how to take these into account to help projects thrive. Well-supported students and well-managed staff-student relationships can also help counteract the problematic negative view of students from operational University staff, while involvement of a wide range of stakeholders can also lead to innovations and adaptations drawn from engaging different perspectives.

Failing to achieve interdisciplinarity

Although co-curriculum projects have the potential for greater interdisciplinarity and transdisciplinarity than is easily achieved in the traditional formal curriculum, the degree of involvement of students from different disciplinary backgrounds in the projects outlined is less than would ideally be observed. There is a strong overlap in the pool of students involved in the different projects, and where many of the projects arise from. Keele is one of only around ten institutions in the UK that run a sustainability-focussed undergraduate degree. Although not a very high recruiting programme, the course brings together students with a passion for sustainability, catalysing many major student-led sustainability projects on campus. The downside of this is that there are already often strong bonds formed through the formal curriculum, reinforced by shared co-curriculum activities and often strong shared values and behaviours. This can give an impression of “cliquey-ness” (Brodie *et al.*, 2011), and make these projects less appealing for students who do not feel they “fit the mould”. The partnership has had the opportunity to tackle this barrier through one project, by informing student representatives with the expert knowledge held by the ESD team. With 18 elected student officers making up KeeleSU’s Union Council and nearly 400 academic representatives being trained and supported by the Students’ Union, there is wide scope in the potential to reach students from across disciplines.

Disengagement from activities

Where a sustainability society offers a flexible structure and the opportunity to be involved in a variety of activities, students may engage with that society as a result of just one of those activities being of interest to them, which can be problematic if that particular activity does not continue. A key reason for disengagement with student activities is where students find themselves unable to uphold all of their commitments and balance this with their academic priorities. British Universities and Colleges Sport (2018) found that the biggest barrier to activity was “too busy with studies”, with 76 per cent of students citing this as

their main reason for not engaging with some form of physical activity. Whilst this cannot directly be applied to the sustainability projects discussed in this paper, the figure highlights the tendency of students in 2018-2019 to prioritise academic work above other aspects of their life, including health and lifestyle, suggesting a need for greater communication from different sources, including academic staff tutors, of the benefits of involvement with co-curricula activities.

Stakeholder transience

Stakeholder transience presents three challenges:

- (1) where key students who have initiated and led projects leave the University;
- (2) if staff with personal passion and who are 'key enablers' leave the institution or SU; and
- (3) transience of ideas and buy-in to a project from stakeholders due to changing priorities and staff.

Some projects are naturally smaller scale and may only last a year; others may struggle to get beyond the planning stage due to lack of interest, resources or competing commitments; others may have interest and resources but just do not work in reality at that specific point in time.

Student transience can cause problems for student-led projects, both in terms of students leaving universities, but also in terms of students reducing their involvement whilst remaining at their institution due to competing interests and commitments from academic deadlines (Leung *et al.*, 2011) or other co-curricular commitments, leading to the depletion of the pool of volunteers (Nesbit *et al.*, 2017). This can lead to the loss of knowledge retention and continuity in a project (Laycock Pedersen and Robinson, 2018), which can cause further disengagement, slow down progress or halt a project. Collaboration between students, the University and SU teams can help to address some of these issues, and help develop a legacy of student-initiated projects, as can be seen with "The Great Donate", "Keele Food Co-op" and the "Student Sustainability Bungalow". In these cases, University or SU structures have grown to support the initial student-led ideas, whilst still maintaining student leadership. More formal involvement of SU or University stakeholders can develop effective communication of a project to attract students from wider disciplines as well as support student leadership, creating a wider team of students with allocated roles to ensure distributed responsibility for the project, helping reduce turnover and burnout of the volunteer pool (Brodie *et al.*, 2011; Nesbit *et al.*, 2017). Increased staff support can, however, cause students to move away from leading on projects once they become embedded in institutional processes to start new campaigns where they perceive a requirement for action (Helferty and Clarke, 2009).

Conclusion

The student-led co-curricular projects presented in this paper provide real-life experiences of sustainability that offer significant learning potential about driving change, but encompass several challenges, some of which can be overcome by effective partnership through different parts of the University and Students' Union. Furthermore, they offer opportunities to link in with multiple SDGs, and to enable students to become members of an 'energetic society' who effect change as active citizens or members of civil society, driven by their personal concern relating to tackling sustainability challenges (Hajer *et al.*, 2015).

Through partnerships between students, (whether through formal mechanisms enabled by SU staff or through smaller student groups) and Universities, collaborative spheres can be created that foster and encourage engagement and participation in new and existing student-led

sustainability initiatives that can offer learning for all participants engaged in the collaborative process (Healey *et al.*, 2014). Immersive experiential student learning opportunities through the co-curriculum can reinforce and develop theoretical formal curriculum learning. Whilst parts of the University's Estates and Operations remit and its staff may sometimes feel relatively removed from the educational and research aspects of the University, this paper demonstrates that through partnership, they in fact contribute to the shared objective of the "student experience" and helping students develop skills and knowledge in driving change for sustainability.

Whilst they are not without unique challenges, the projects highlighted in this paper demonstrate the potential for student experience to be enhanced through partnership between a University and a Students' Union, particularly when working collaboratively on student-led initiatives. This collaborative process also delivers an opportunity for students and staff, whether they are from the University or Students' Union, to become agents of change for a more sustainable future.

References

- Albareda-Tiana, S., Vidal-Raméntol, S. and Fernández-Morilla, M. (2018), "Implementing the sustainable development goals at university level", *International Journal of Sustainability in Higher Education*, Vol. 19 No. 3, pp. 473-497.
- Barton, G. and Ryan, M. (2013), "Multimodal approaches to reflective teaching and assessment in higher education", *Higher Education Research and Development*, Vol. 33 No. 3, pp. 409-424.
- Boud, D., Keogh, R. and Walker, D. (1987), "What is reflection in learning", in Boud, D., Keogh, R., Walker, D. (Eds), *Reflection: Turning Experience into Learning*, Routledge, London, pp. 7-17.
- Bovill, C., Cook-Sather, A. and Felton, P. (2010), "Students as co-creators of teaching approaches, course design, and curricula: implications for academic developers", *International Journal for Academic Development*, Vol. 16 No. 2, pp. 133-145.
- Brannick, T. and Coghlan, D. (2007), "In defense of being 'native': the case for insider academic research", *Organizational Research Methods*, Vol. 10 No. 1, pp. 59-74.
- British Universities and Colleges Sport (2018) "British active students survey: 2017/18 report", [Online], available at: www.bucs.org.uk/core/core_picker/download.asp?id=36913&filetitle=British+Active+Students+Survey+2018
- Brodie, E., Hughes, T., Jochum, V., Miller, S., Ockenden, N. and Warburton, N. (2011), "Pathways through participation: what creates and sustains active citizenship?", Report of the National Council for Voluntary Organisations, Institute for Volunteering Research, and Involve.
- Chalkley, B. (2006), "Education for sustainable development: continuation", *Journal of Geography in Higher Education*, Vol. 30 No. 2, pp. 235-236.
- Chaplin, G. and Wyton, P. (2014), "Student engagement with sustainability: understanding the value-action gap", *International Journal of Sustainability in Higher Education*, Vol. 15 No. 4, pp. 404-417.
- Curtis, S. and Shani, N. (2010), "The effect of taking paid employment during term-time on students' academic studies", *Journal of Further and Higher Education*, Vol. 26 No. 2, pp. 129-138.
- Dawe, G., Jucker, R. and Martin, S. (2005), "Sustainable development in higher education: current practice and future developments", *Higher Education Academy*.
- Flint, A., Goddard, H. and Russell, E. (2017), *Architects of Their Experience: The Role, Value and Impact of Student Academic Representation Systems in England*, [pdf], TSEP, London, available at: www.tsep.org.uk/resources (accessed 22 October 2018).
- Graham, P., Stretesky, P., Long, M. and Mann, E. (2018), 'Holiday hunger: feeding children during the school holidays', in Harman, V., Cappellini, B. and Faircloth, C. (2018), *Feeding Children Inside and Outside the Home: Critical Perspectives*, London, Routledge, pp. 87-106.

- Hajer, M., Nilsson, M., Raworth, K., Bakker, P., Berkhout, F., de Boer, Y., Rockström, J., Ludwig, K. and Kok, M. (2015), "Beyond cockpit-ism: four insights to enhance the transformative potential of the sustainable development goals", *Sustainability*, Vol. 7 No. 2, pp. 1651-1660.
- Hall, R. (2010), "The work-study relationship: experiences of full-time university students undertaking part-time employment", *Journal of Education and Work*, Vol. 23 No. 5, pp. 439-449.
- Harvey, M., Coulson, D., Mackaway, J. and Winchester-Seeto, T. (2010), "Aligning reflection in the cooperative education curriculum", *Asia-Pacific Journal of Cooperative Education*, Vol. 11 No. 3, pp. 137-152.
- Healey, M., Flint, A. and Harrington, K. (2014), *Engagement through Partnership: Students as Partners in Learning and Teaching in Higher Education*, Higher Education Academy.
- Helferty, A. and Clarke, A. (2009), "Student-led campus climate change initiatives in Canada", *International Journal of Sustainability in Higher Education*, Vol. 10 No. 3, pp. 287-300.
- Hopkinson, P., Hughes, P. and Layer, G. (2008), "Sustainable graduates: linking formal, informal and campus curricula to embed education for sustainable development in the student learning experience", *Environmental Education Research*, Vol. 14 No. 4, pp. 435-454.
- Houwer, R. (2011), "Learning freedom: the pedagogical potential of crisis", *Journal for Activist Science and Technology Education*, Vol. 3 No. 1, pp. 109-117.
- Jain, A. (2012), "Challenges facing Volunteer-Managed nonprofit organizations with non-bureaucratic governance and non-hierarchical structures", [Thesis]. Master of Arts Department of Leadership, Higher and Adult Education Ontario Institute of Studies in Education: University of Toronto.
- Kapur, M. (2008), "Productive failure", *Cognition and Instruction*, Vol. 26 No. 3, pp. 379-424.
- Kearsley, G. and Shneiderman, B. (1998), "Engagement theory: a framework for technology-based teaching and learning", *Educational Technology*, Vol. 38 No. 5, pp. 20-23.
- Keele University (2018), "Sustainability report 2018", accessible at: www.keele.ac.uk/media/keeleuniversity/microsites/greenkeele/reportsandmins/2018%20Sustainability%20Report.pdf (accessed 29 January 2019).
- Keele University (2019), "Our history", accessible at: www.keele.ac.uk/discover/ourhistory/ (accessed 29 January 2019).
- Kolb, D.A. (2015), *Experiential Learning: Experience as the Source of Learning and Development*, Pearson Education, NJ.
- Laycock Pedersen, R. and Robinson, Z.P. (2018), "Reviewing university community gardens for sustainability: taking stock, comparisons with urban community gardens and mapping research opportunities", *Local Environment*, Vol. 23 No. 6, pp. 652-671.
- Laycock Pedersen, R., Robinson, Z.P. and Surman, E. (2019), "Understanding transience and participation in university student-led food gardens", *Sustainability*, Vol. 11 No. 10.
- Le Blanc, D. (2015), "Towards integration at last? The sustainable development goals as a network of targets", *Sustainable Development*, Vol. 23 No. 3, pp. 176-187.
- Leung, C.H., Ng, C.W.R. and Chan, P.O.E. (2011), "Can co-curricular activities enhance the learning effectiveness of students? An application to the sub-degree students in Hong Kong", *International Journal of Teaching and Learning in Higher Education*, Vol. 23 No. 3, pp. 329-341.
- Lozano, R., Lukman, R., Lozano, F.J., Huisinigh, D. and Lambrechts, W. (2013), "Declarations for sustainability in higher education: becoming better leaders, through addressing the university system", *Journal of Cleaner Production*, Vol. 48, pp. 10-19.
- Mora, J.M. (2017), "Universities must value their students more than their reputation", *Times Higher Education Blog*, [Online], available at: www.timeshighereducation.com/blog/universities-must-value-their-students-more-their-reputation
- Nesbit, R., Christensen, R.K. and Brudney, J.L. (2017), "The limits and possibilities of volunteering: a framework for explaining the scope of volunteer involvement in public and nonprofit organizations", *Public Administration Review*, Vol. 7 No. 4, pp. 502-513.

- Nilsson, M. Griggs, D. and Visbeck, M. (2016), "Policy: map the interactions between sustainable development goals", *Nature Comment*, [Online], available at: www.nature.com/news/policy-map-the-interactions-between-sustainable-development-goals-1.20075
- Patton, M.Q. (2015), *Qualitative Research and Evaluation Methods*, 4th ed., Sage, Thousand Oaks, CA.
- Robinson, Z. (2019), "Geography as responsibility: sustainability through teaching and learning within geography", Walkington, H., Hill, J.L. and Dyer, S. (Eds), *Handbook on Teaching and Learning in Geography*, Edward Elgar, Cheltenham.
- Shephard, K. (2015), "Sustainability and ES/ESD missions: where are we now, how did we get here and where to from here?", *Higher Education for Sustainable Development*, Palgrave Pivot, London.
- Trahar, S. (2009), "Beyond the story itself: narrative inquiry and autoethnography in intercultural research in higher education", *Forum: Qualitative Social Research*, Vol. 10 No. 1, p. 30.
- United Nations (2019), "About the sustainable development goals", accessed at: www.un.org/sustainabledevelopment/sustainable-development-goals/ (accessed 27 January 2019).
- Wiek, A., Withycombe, L. and Redman, C.L. (2011), "Key competencies in sustainability: a reference framework for academic program development", *Sustainability Science*, Vol. 6 No. 2, pp. 203-218.
- Winter, J., Cotton, D., Grant, V. and Hopkinson, P. (2015), "The university as a site for transformation around sustainability", *International Journal of Innovation and Sustainable Development*, Vol. 9 Nos 3/4, pp. 303-320.
- Yin, R.K. (2009), *Case Study Research: design and Methods*, 4th ed., Sage, Los Angeles.

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